

**Amendments to the Specification:**

Please replace paragraph [0001] with the following amended paragraph:

[0001] This application claims the benefit of U.S. Provisional Patent Application Serial No. 60/444,369, filed January 31, 2003, which is incorporated herein by reference. This application is also a continuation-in-part of U.S. Patent Application Serial No. 09/964,487, filed September 28, 2001, now U.S. Patent No. 6,710,711, which claims priority from U.S. Provisional Application No. 60/236,730, filed October 2, 2000, which are incorporated herein by reference.

Please replace paragraph [0037] with the following amended paragraph:

[0037] Fig. 2 is a flow diagram illustrating a typical method that may be used in accordance with a particular embodiment of the present invention. The method includes establishing modeling locations within the area of concern, modeling contaminant dispersion patterns, recording background and simulation data at the modeling locations, selectively positioning sensors at locations for the optimal collection of detection data, collecting detection data, comparing the detection data to the background and simulation data to detect unsafe contaminant levels, and notifying the response system of unsafe contaminant levels.

Please replace paragraph [0053] with the following amended paragraph:

[0053] In accordance with a particular embodiment of the present invention, the detection system may be augmented with a secondary system that collects and analyzes syndromic data for humans, plants and animals (i.e., delayed data). This secondary system may serve as a back-up in the event the primary detection system fails. The secondary system may also serve as a periodic system check to gauge the effectiveness of the primary system. The secondary system may incorporate an analytical methodology known as GLOBDISS (the Global Disease Detection System), which is described in U.S. Patent Application Serial No. 09/964,487, now U.S. Patent No. 6,710,711, the contents of which are incorporated herein by reference. System checks may also be accomplished using extrapolation or empirical methods.